

AMENDMENTS TO THE SPECIFICATION

Please replace the fourth full paragraph on page 1 with the following amended paragraph:

- a ~~running device~~rolling device connected to each vehicle and arranged on the said at least one running rail so as to be able to run thereon, the vehicle provided with the ~~running device~~rolling device having a resistance to running on the said at least one rail,

Please replace the fourth full paragraph on page 2 with the following amended paragraph:

None of the elements of the prior art deal with transport over a long distance on routes with variable ~~reliefs~~elevations between the starting point and the arrival point. Many prior documents have provided for a descent of vehicles by gravity along a transport track, without envisaging a route where the difference in ~~altitude~~elevation between starting point and arrival point is zero or negative.

Please replace the fifth full paragraph bridging pages 2 and 3 with the following amended paragraph:

The aim of the present invention is to develop a vehicle transport system which makes it possible to organise the most parsimonious possible use of potential energies, and in particular gravity, and a maximum use of natural ~~reliefs~~elevations. This system should advantageously allow the non-river transportation of specific vehicles or containers, to standard dimensions or not, at controlled speed and traffic, and this preferably over a long distance, for example several kilometres.

Please replace the first full paragraph page 3 with the following amended paragraph:

This problem has been resolved according to the invention by a transport system of the type indicated at the start, in which the transport track has a starting point and an arrival point having an ~~altitude~~elevation equal to or higher than the starting point, and comprises several sections of descending track between which there is in each case arranged a section of ascending track on which each vehicle provided with the ~~running device~~rolling device is driven by a driving device, the slope of each section of descending track being insufficient to produce a continuous acceleration of the said at least one vehicle on the said at least one running rail, each vehicle having there a substantially constant speed, balanced by the said resistance to running with other resistances added, such as the resistance to air of the vehicle, the transport track having a route along which no vehicle at any point is raised higher than the ~~altitude~~elevation that the vehicle would have at this point on the transport track having a single descending section provided with the above mentioned slope between the starting point and the arrival point.

Please replace the third full paragraph bridging pages 3 and 4 with the following amended paragraph:

When the departure point has an ~~altitude~~elevation equal to or lower than the arrival point, it suffices to calculate the route of the track according to the ~~relief~~elevation, so that there are as few ascending sections as possible. It is nevertheless necessary for no vehicle to be at a point raised higher than the ~~altitude~~elevation that the vehicle would have at this point on a track

having a single descending section between the starting point and the arrival point and provided with the required slope according to the invention.

Please replace the second full paragraph on page 4 with the following amended paragraph:

The vehicles according to the invention are moved on the descending sections with only an extremely minimal energy dissipation due to the friction of the ~~running device~~rolling device on the rail or rails since there is no need for braking.

Please replace the first full paragraph on page 5 with the following amended paragraph:

According to the invention, the vehicle provided with the ~~running device~~rolling device is driven by a driving device that can be carried by the vehicle or the ~~running device~~rolling device itself and start up as soon as an ascending slope is detected, and then stop as soon as a descending slope is detected. The driving device can also advantageously be carried by the rail or rails on the ascending section and cooperate with any vehicle or ~~running device~~rolling device accessing this ascending section, whilst remaining stopped as soon as no vehicle is detected on this section. It is also possible to provide any appropriate driving device mounted close to the ascending sections at any point enabling cooperation with the container as soon as the latter approaches.

Please replace the second full paragraph on page 5 with the following amended paragraph:

According to one advantageous embodiment of the invention, the transport track comprises overhead rail support means, at least on certain sections, and the vehicle is suspended from this overhead rail by the ~~running device~~rolling device. This type of support means is very lightweight in terms of infrastructure and adapts very easily to variations in ~~relief~~elevation on the terrain.

Please replace the third full paragraph bridging pages 5 and 6 with the following amended paragraph:

Advantageously, the vehicle to be transported is a container, preferably a container with standard overall dimensions. This container can also be provided with standard corner elements, of the type in accordance with ISO standards, which make it possible to exert external traction and compression forces on the container. The ~~running device~~rolling device can be fixed to the container in a foldable form in the volume formed by the overall dimensions of the container. In this way, it does not get in the way during the stacking or handling of the containers. The ~~running device~~rolling device can also be independent of the container and be fixed to it at the start of the track, either for example by means of a fixing frame known per se which is capable of being attached to the above-mentioned corner elements, or directly, without any intermediate frame, to the corner elements.

Please replace the fifth full paragraph on page 6 with the following amended paragraph:

The invention also concerns a use of a transport system as indicated above, for transporting vehicles over long distances using potential energies parsimoniously, this use

comprising a reading of the ~~relief~~elevation between the starting point and the arrival point and a determination of the route of the transport track on the basis of this reading, so that the said track has the said slope on the said descending sections and a minimum number of ascending sections.

Please replace the first full paragraph on page 7 with the following amended paragraph:

Figure 5 depicts, in a partial plan view, the ~~running device~~rolling device of a container applicable in a transport system according to the invention.

Please replace the fifth full paragraph on page 7 with the following amended paragraph:

As can be seen in particular in figures 3 to 5, the illustrated example embodiment of a transport system according to the invention comprises a transport track formed, in this case, from two running rails 1 and 2, a vehicle to be transported in the form of a container 3 and a ~~running device~~rolling device comprising four bogies 4 each supporting four wheels 5. The running wheels are, in the example illustrated, disposed so as to form an overhead track and, for this purpose, are supported by gantries 6 disposed at regular intervals.

Please replace the sixth full paragraph on page 7 with the following amended paragraph:

The bodies of the ~~running device~~rolling device, in the example embodiment illustrated in figure 5, are connected by a hinge 7 to the chassis of the container 5 and are folded over the roof of the container 3 by pivoting, so as to be retracted in the overall volume of the container.

Please replace the first full paragraph on page 8 with the following amended paragraph:

The transport track 8 comprises, at the start, a possibly, but not necessarily, short rising section of track 12'. At the summit 13 of this section 12', the track follows a descending track section 14'. The descending track section must be designed according to the terrain so as not to obtain an excessively steep slope, causing a continuous acceleration of the vehicles running on the track. In this example embodiment, the slope is planned at 4/1000. Assuming therefore that the terrain is at ~~altitude-elevation~~ 0, and that the ~~altitude-elevation~~ at the summit 13 is 4 m, a vehicle descending on the section 14' can travel freely at a constant speed over a distance of 1000 m. Obviously the departure point may often be situated at a higher ~~altitude-elevation~~ than 4 m. For example, the containers stacked on a vessel may at the outset have an ~~altitude-elevation~~ of 30 m and more. Rather than unloading them onto the quay and then stacking them once again in order to store them, it would therefore be possible from the outset to profit from this initial height in order to enable the unloaded containers already to travel a significant distance. At an ~~altitude-elevation~~ 20 m at the start, the container can achieve a distance of 5 km.

Please replace the second full paragraph on page 8 with the following amended paragraph:

Figure 1 also illustrates how to pursue travel on flat terrain over a long distance from a departure point 10. There are in succession ascending sections 12', 12'' and 12''' and descending sections for the gentle slope 14', 14'' and 14'''. The expenditure of energy to be made for a vehicle to travel between a departure point and an arrival point on a transport track

where the descending sections have a slope of 4/1000 is in theory the same if the track comprises a single ascending section 12 and a single descending section 14 or for several alternating ascending and descending sections. For reasons of expenditure on infrastructure it is obviously more economical to divide the transport track, as illustrated in figure 2, into small successive sections so as to be able to best profit from the variations in ~~relief~~elevation on the terrain. The most appropriate route can be calculated in a known manner from ~~relief~~elevation data existing at the present time.

Please replace the first full paragraph on page 10 with the following amended paragraph:

Figure 2 illustrates an example embodiment of a transport track where the departure point 10 is situated at an ~~altitude~~elevation lower than the arrival point 11. As in the previous case a succession of ascending sections 12', 12'', 12''' and descending sections 14', 14'', 14''' is provided. All the descending sections are provided with the minimum energy slope forming an angle \square with respect to the horizontal. The ascending sections have a different rising angle according to the existing ~~relief~~elevation which is illustrated by the curve 30.

Please replace the third full paragraph on page 10 with the following amended paragraph:

As can be seen, the ~~relief~~elevation 30 can have in a direct line elevations and depressions that are sometimes large. In the case of such slopes, in order to be able to follow the minimum energy slope, without having to require infrastructure works at exorbitant cost such as bridges or

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Application No.: 10/595,448

Attorney Docket No.: Q94513

tunnels, the route will follow a winding path, not shown, according to the ~~relief~~elevation, which will make it possible to avoid these differences in ~~altitude~~elevation.